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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,450	07/17/2000	Frank Sattler	4303 US	7821

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Martin A Farber
866 Nations Plaza
Suite 473
New York, NY 10017

EXAMINER

TSE, YOUNG TOI

ART UNIT	PAPER NUMBER
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2634

7

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/617,450

Applicant(s)

SATTLER ET AL.

Examiner

YOUNG T. TSE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4.5</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are objected to because the block pertaining elements 1-7 in Figure 1 and 24 and 31 in Figure 3 need to have descriptive label, in conformance with 37 CFR 1.84(n) and 1.84(o). For example, a descriptive label of "Multiplexer" should be inserted into Figure 1 to properly describe element (1). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: the reference signs "E" and "6" are not shown in Figure 2 as mention on page 8, lines 11-14 of the specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: on page 1, line 22, "(DE 198 02 065.1)" appears to read -- (DE 198 02 065.A1) --; on page 6 (lines 11, 24, and 32) and page 7 (lines 4, 17, 23, 29, and 35), "5 - 1" appears to read -- 5 - I -- ; page 8, lines 11-12 and 13-14, Applicant is requested to clarify the difference of "the input 6" and "the input E" for the basis clock signal CL as shown in Figure 2, further, the reference sign 6 is already used for the block element of Map Device; on page 10, line 24, "25, 26" should be -- 20, 21 --; and on page 11, line 26, "multiplexers 21" should be -- multiplexer 21 --. Appropriate correction is required.

Claim Objections

4. Claims 1-12 are objected to because of the following informalities:

In claim 1, line 6, "comprising" should be -- said method comprising --.

In claim 2, lines 2-3, the phrase "wherein, in order to calibrate the delay units (D1-D7), the method comprises ..." should be -- wherein the step of calibrating the delay units (D1-D7) comprises ... --.

In claim 4, lines 3 and 10, "the delay unit" and "the last delay unit" should be -- the fourth delay unit -- and -- the fourth delay unit --, respectively.

In claim 7, line 4, the word "these" should be -- the --.

Wherein the dependent claims 3, 5-6, and 8-12 are directly or indirectly depended upon claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant fails to discuss the difference between the prior art "DE 198 02 065.A1" and the instant application. Although the admitted prior art "DE 198 02 065.A1" is described in the specification and provided in the Information Disclosure Statement, the prior art of the Germany document does not have English translation, therefore, it is unclear what is new and the advantage of the present invention over the prior art.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 6 and 9, the phrase "in this way" is vague and indefinite because Applicant does not specify exactly what is in this way and the phrases "in or out" and

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“and/or” are also vague and indefinite because they are unclear exactly “in”, “out”, “and”, or “or”. Also see claims 2-4 and 10.

In claim 2, line 4, it is unclear what is meant by “a stepwise approximated manner”?

In claims 3 and 4, it is unclear what is the difference between the condition of the coarse calibration and the fine calibration.

In claim 4, line 12, it is unclear what is meant by “a corresponding manner”?

In claim 10, it is unclear what is the difference between “a number of delay units” and “a changing number of delay units”? further, the phrase “the delay units” lacks antecedent basis since it is unclear the number of delay units or the changing number of delay units.

Wherein the dependent claims 5-9 and 11-12 are directly or indirectly depended upon claim 1.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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10. Claims 1-7 and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Donnelly et al..

Donnelly et al. (U.S. Patent No. 5,945,862) discloses a phase adjustment circuit in Figure 4 for adjusting the phase of an incoming periodic clock signal. The phase adjustment circuit includes delay chains (410, 510) each having a plurality of delay element taps (440, 540), a boundary detector (490) for indicating when a tap is at a phase boundary of the incoming period signal, a selection circuit (450 or 455) for selecting one of the taps from the delay chains, and a selection logic (445 or 480) for selecting a control signal to control the selection of the selection circuit.

With respect to claims 1 and 10, the delay times of the delay chains are calculated based on the clock signals (430 and 520), wherein each delay circuit having a plurality of delay elements (820 or 825) which are connected in individually or groups (see Figure 7, col. 4, lines 28-53, and col. 8, lines 14-30).

With respect to claims 2-4, each of the delay elements is delayed by a predetermined period of time.

With respect to claims 5 and 11, although a random number generator is not shown in Figure 4 for generating the clock signals (430 and 520) to the delay chains. It is well known a to person skill in the art that the clock signal(s) is generated by a clock generator or a random number generator.

With respect to claims 6 and 7, the clock signals on both Clk-In 430 and Clk-InB 520 are cyclical clock signals and the clock signals of Clk-InB 520 are the complement (inverted random number) of the clock signals of Clk-In 430.

With respect to claim 12, the delay elements shown in Figure 7 are integrated by at least two inverter circuits (820 and 825).

Allowable Subject Matter

11. Claims 8 and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to show or suggest that the distance between two successive switching edges is derived as a function of a random number and a modulation factor.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

References Oh, Martin, Aizenberg et al., Hanna, Roylance et al., and Percey are made of record as describing a related circuit for modulating or calculating a delay clock signal delayed by a plurality of delay elements having distances between adjacent switching edges.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Young Tse** whose telephone number is **(703) 305-4736**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Stephen Chin**, can be reached at **(703) 305-4714**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

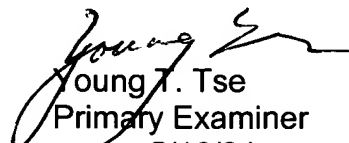
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.


Young T. Tse
Primary Examiner
5/16/04